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#### **ABSTRACT**

The percentage of students taking more challenging courses in high school is dramatically higher now than in the early 1980s. The growth in number of students and schools participating in Advanced Placement (AP) courses is equally dramatic. AP courses are designed by college faculty and by experienced high school faculty. They are an example of schools and colleges working together to develop higher content and performance standards. Almost 3,400 high schools in Southern Regional Educational Board states offer AP courses--about twice as many as 10 years ago. More than 146,000 high school students in these states completed AP courses in 1994. Most students in this region who take AP examinations score high enough to earn credit at colleges and universities. Those who do not score high enough to earn college credit perform better in college than students who have not taken AP courses. Incorporating AP courses into a school's curriculum is not easy, however. State departments of education encourage participation in AP courses, but most do not develop comprehensive or special initiatives to support it. States are encouraged to expand and improve AP course offerings through: training seminars for AP teachers; funding part or all of AP examination fees for students; and providing incentives for schools to participate in AP programs. (KW)

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## Challenging Students to Higher Standards Through Advanced Placement

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**Southern Regional Education Board** 

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## GOALS FOR EDUCATION

#### BY THE YEAR 2000 ---

# Student achievement for elementary and secondary students will be at national levels or higher.

SREB Goals for Education Commission for Educational Quality 1988

In its 1981 report, *The Need for Quality*, the Southern Regional Education Board sounded this challenge: "The goal is to surpass minimum competencies, to achieve substantial improvement above minimum expectations." Today's high school seniors were in kindergarten. The South and the nation were focused on setting minimum competency standards, but SREB was already urging states to raise expectations.

Fifteen years later, more high school graduates are meeting the challenge to surpass minimum expectations. Often lost in today's headlines is the fact that more students than ever before—and a higher percentage of students—are graduating from high school with advanced placement courses and college credits.

The number of high school students taking college-level courses has more than quadrupled in ten years. While the proportion of students taking advanced placement courses in high school is still small, it is not insignificant. Today's advanced placement students would fill almost one-half of the freshman classes at all public four-year colleges and universities in the SREB states.

In the 1980s, the *Nation's Report Card*, published by the National Assessment of Educational Progress, reported that SREB states led the nation in raising student achievement at the basic levels of performance. The emphasis on minimum competency did raise achievement for many students, but the improvements were modest and at the lower skill levels. These efforts did not challenge students to reach high standards of performance.

Advanced placement courses in high school and dual enrollment of high school seniors in freshman college courses are two ways that communities and states can help more students extend their academic reach. This report is intended to help you gauge how your school or your state is doing in efforts to challenge students to meet higher standards and to help them succeed.

Mark D. Musick, President Southern Regional Education Board



## Challenging Students to Higher Standards Through Advanced Placement

"The standards of Advanced Placement positively affect the entire academic program by setting expectations that exceed minimum competencies. Everyone in a school must work together; successful Advanced Placement programs are not accidents."

An AP English teacher from Eastern Guilford (N.C.) High School

Three students wearing shoulder pads and football jerseys are hunched over sheets of paper. The paper doesn't contain defensive or offensive plays, but a math problem in the Advanced Placement calculus course they take between school and foodball practice. They will be on the field 30 minutes late, so they wear their jerseys and pads to class.

These three South Carolina high school seniors want to play football; they also want to complete a course that can lead to credit for the first semester of college calculus. They are among thousands of high school students in South Carolina and other SREB states who will enter college having already completed one or more college-level courses.

This true story illustrates some of the best news about student achievement in the 1990s. The percentage of students taking more challenging courses in high school is

dramatically higher now than in the early 1980s. About 54 percent of the South's high school graduates complete at least four English, three social studies, three science, and three mathematics courses—compared to only 13 percent a decade ago.

The explosion in the number of students and schools participating in the Advanced Placement (AP) program is equally dramatic. The number of students completing these college-level courses in high school has doubled in the last five years and quadrupled since 1984. By completing several Advanced Placement courses, high school students can save time and money, and they have more choices about which courses they take when they enter college. The Advanced Placement program helps students complete their college degrees earlier and take courses they would not otherwise have time for.

#### How does Advanced Placement work?

"The greatest benefit of taking an AP class is to gain a realistic introduction to the expectations of demanding college courses. [It] gives students an excellent opportunity to develop good study babits, to practice problem-solving skills, and to acquire the self discipline needed for success in college."

A North Carolina State University biology professor

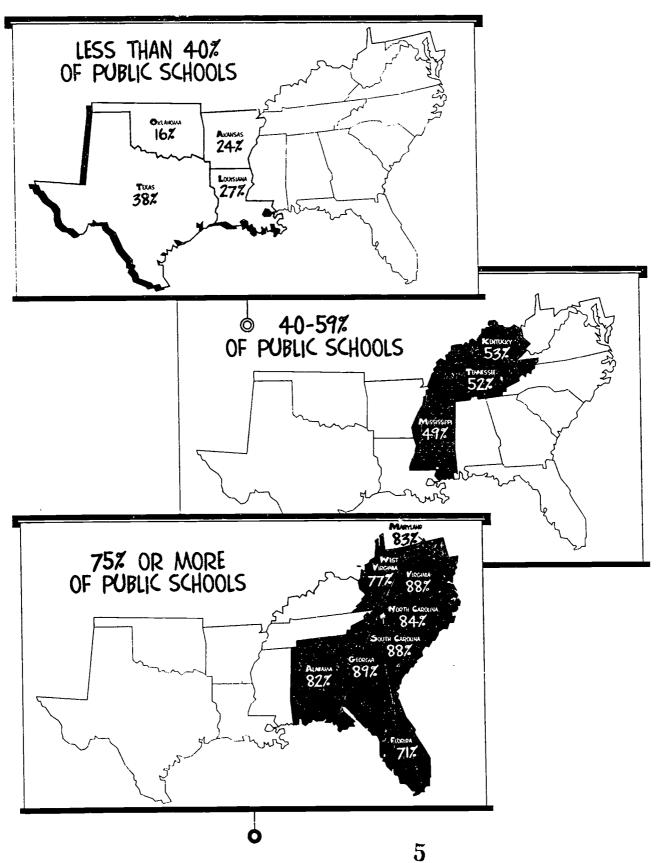
Advanced Placement courses, supporting materials, and national examinations are designed *jointly* by college faculty who teach introductory college courses and by experienced high school faculty who teach Advanced Placement courses. The most popular Advanced Placement courses are



This report was prepared by Joseph D. Creech. *NRFB Associate Director for Educational Policies.* Research assistants. Jennifer Burke and Anne Li gathered much of the information and contributed to the report.

#### **HOW MANY SCHOOLS OFFER COLLEGE-CREDIT COURSES?**

Percent of Public Secondary Schools\* Offering Advanced Placement Courses in SREB States





Sources: The College Board Advanced Placement Examination Statistics. 1904
1. S. Department of Education: Digest of Education Statistics 1994 (Washingth, DC, NCES).
Percents are computed by dividing the numbers of high schools with AP condidates (1994) by total public high schools in 1993, the most current year available).

U.S. History, English literature and composition, calculus, and biology. High schools may also offer Advanced Placement courses in art, chemistry, computer science, economics, European History, French, German, government and politics, Latin, music, physics, psychology, and Spanish.

Many colleges and universities follow the American Council on Education's recommendation and award college credit for a grade of 3 or higher on any Advanced Placement examination. Some colleges may require a score of ± or 5 for credit in some subjects. Of the 2,900 colleges and universities in the nation that award credit for AP courses, about 1,400 (almost 400 in the SREB states) will grant as much as a full year of college credit based on a student's performance on the examinations.

The AP program represents high quality content and a high standard of student per-

formance, and it establishes a tough national standard for judging results. Not only do those students who take AP courses benefit, but so do those in lower grades. When high schools add AP courses, there is often a "ripple" effect that can raise the academic level of the entire school. Offering AP calculus in grade 11 or 12 means that algebra, trigonometry and other pre-calculus courses must be available to students in earlier grades and must be taught to higher standards.

AP is an example of schools and colleges working together to develop content and performance standards. The program represents agreements between college faculty and high school teachers about important course content, student competence, and assessment. In-service training for teachers and administrators is used to share information, teaching methods, and the development of course materials. The college credits provide incentives for students to excel.

#### How many high schools offer Advanced Placement?

Almost 3.400 (2,750 public and 620 private) high schools in SREB states offer Advanced Placement—about twice as many as ten years ago. In fact, in 1994 the combined number of high schools (1,828) offering Advanced Placement in just five SREB states (Florida, Georgia, North Carolina, Texas and Virginia) was greater than the number offering Advanced Placement in all the SREB states ten years ago (1,727).

In 1994, Advanced Placement courses were part of the curriculum in 55 percent of the region's public schools—up from 43 percent five years earlier, Alabama, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, and West Virginia offer Advanced Placement courses in at least 70 percent of their public high schools.

More than 50 percent of the schools in Kentucky and Tennessee and almost 50 percent of those in Mississippi offer at least one Advanced Placement course. Less than 40 percent of public schools in Texas, Arkansas, Louisiana, and Oklahoma participate.

Virginia's Thomas Jefferson High School of Science and Technology, Texas' Plano Senior High School, and Florida's Staunton College Preparatory School led the nation in the number of examinations given in 1994. Florida's Coral Gables High School was close behind in seventh place. At these four schools 2,500 students took almost 5,500 AP examinations last year.



AND HOW MANY EXAMS DO THEY TAKE?						
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Sources: The College Board, Advanced Placement Examination Statistics, 1984 through 1994.

#### Who takes Advanced Placement courses and examinations?

"In an AP course, they don't just teach you to recall dates or who wrote which book. They try to develop your thinking skills throughout the year, and you come out knowing your stuff."

A Georgia high school senior

More than 146,000 high school students (125,000 in public high schools) in SREB states completed AP courses last year. That is a small proportion of all high school juniors and seniors, but it equals the number of students needed to fill one-half of the freshmen classes at all public four-year colleges and universities in the SREB states.

The growth has been so phenomenal in several states that the number of high school students taking AP courses approaches the number of freshmen enrolled in four-year col-

leges. In Florida, for example, almost as many students took AP courses in 1994 (29,550) as there were freshmen in Florida's public and private four-year colleges and universities. The number of public high school students taking AP examinations in Maryland, South Carolina, and Virginia would make up about three-fourths of the freshmen at public four-year colleges in those states. In Georgia and North Carolina, they would make up more than one-half of the freshmen at public four-year colleges in those two states.

The number of minority students taking AP courses is also up sharply. Blacks, Hispanics, Asians, Native Americans, and other minority groups now account for about 25 percent of all AP students in SREB states.



#### How well do students perform on the Advanced Placement examinations?

"Even if I don't pass the examination, I won't be too upset because I know I'm a better writer now than I was at this time last year."

An AP English student

Almost three of five students in SREB states who take Advanced Placement examinations score high enough to earn credit at most colleges and universities. That means more than 113,000 students from SREB states (five times the number 10 years ago) could enter colleges and universities with advanced

standing. The examinations are graded on a scale of 1 to 5. A grade of 5 is the average score of college students who earned an "A" in a comparable college course. A score of 3 is the average score for those who earned a "C."

AP examinations include multiple-choice questions and tasks that require the students to write an essay, to solve problems and explain solutions, and to analyze data. Audiotape responses are used in the Spanish.

# What Percentage of Advanced Placement Students are Minorities?

	Black		Hispanic		<b>Asian</b>	
	1984	1994	1984	1994	1984	1994
United States	3 %	5 %	3 %	8 %	8 %	13 %
SREB States	5	9	4	7	5	8
Alabama	5	15	1	1	2	4
Arkansas	3	5	1	0	, 2	4
Florida	5	8	11	17	. 4	7
Georgia	7	15	1	1	. <b>2</b>	7
Kentucky	1	1	. 0	1	, 1	3
Louisiana	6	12	1	4	5	11
Maryland	4	8	1	3	. 9	14
Mississippi	7	12	· 0	1	2	3
North Carolina	6	10	. 0	1	2	4
Oklahoma *	4	4	1	3	. 4	8
South Carolina	6	10	· 0	1	3	5
Tennessee	13	10	0	1	3	5
Texas	2	3	: <sub>9</sub>	16	: - 6	13
Virginia	3	7	1	3	7	10
West Virginia	1	2	, 1	0	, 5	4

<sup>\*</sup> Native Americans were 5 percent of Oklahoma AP students in 1994, up from 2 percent in 1984

Source The College Board, Advance: Placement Examination statistics, 1984 and 1994.



French, and German language examinations. The AP grade in studio art is based on a portfolio of student work.

The questions that require essays and explanations assess students' depth of understanding and ability to organize and present ideas. The more traditional multiple-choice questions provide a broader sampling of student knowledge and course content.

The percentages of examinations with scores of 3 or higher range from 45 to 74 percent in the SREB states. In four SREB states (Maryland, Oklahoma, Texas, and Virginia) the percentage equals or exceeds the national average of 65 percent.

More African-, Hispanic-, and Asian-Americans are earning scores of 3 or higher on the examinations. But with the exception of Asian-Americans, the proportion of minority students scoring 3 or higher continues to trail that of whites both nationally and regionally. In the SREB states, 68 percent of Asian-Americans, 65 percent of whites, 59 percent of Hispanics, and 31 percent of blacks have scores of 3 or higher.

Studies show that even those students who do not score high enough on the examinations to earn college credit are better prepared for college and perform better in college than students who do not take AP courses. Advanced Placement courses give students a sample of the content, skills, teaching methods, and expectations of college-level study. That experience alone serves prospective college students well.

# How can states encourage schools and students to participate in Advanced Placement?

"We really worked bard. We sent a group of teachers to workshops where they could learn the curriculum for AP courses because it's much different from the regular curriculum. And then we made an effort to explain the courses and their advantages to the students."

A Maryland high school principal

Incorporating Advanced Placement courses into a school's curriculum is not easy. Classes are usually smaller (20 or fewer students) and require additional equipment and materials. They must be scheduled so they do not conflict with other required courses. Because the courses are different from the regular curriculum, teachers must be specially trained.

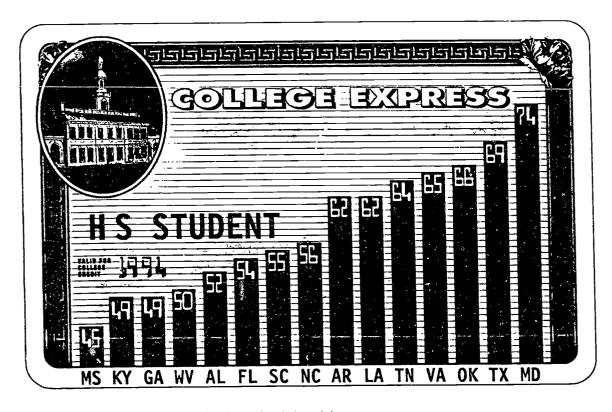
In many states, individual public school districts coordinate and fund Advanced Placement. State departments of education encourage participation but do not develop comprehensive or special initiatives to support it. Maryland is a good example. Maryland does not have a comprehensive statewide AP policy, but over 80 percent of Maryland's public high schools offer the courses, and Maryland ranks 8th nationally in the proportion of 11th and 12th graders taking examinations. Maryland's "passing rate" ("4 percent scoring 3 or higher) on the examinations is above the national average. To achieve this rate, local high schools and school systems had to establish priorities for staffing, teacher training, and supplies and materials. But in many states, local schools and school systems alone do not have the resources and support needed to initiate and maintain a strong program. In those states, Advanced Placement needs a jump-start.

Twenty states throughout the nation have taken special initiatives to encourage partici-



## WHAT PERCENTAGE EARN COLLEGE CREDIT?

1994 Advanced Placement Examinations with scores of 3 to 5.



Note: Scores of 3-5 are accepted for college credit and advanced placement. Source: The College Board, Advanced Placement Examination Statistics, 1994

pation in the AP program. Eleven are SREB states—Alabama. Arkansas, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Texas. Virginia, and West Virginia. While the initiatives and funding vary from state to state, often they include these important elements:

- Funding workshops and training for teachers who will conduct the courses;
- Providing additional funding to assist local schools for "start-up" costs:
- Funding all or a portion of the examinations fees (each examination costs \$71);
- Requiring that schools offer AP courses to be accredited;

- Requiring students to complete AP courses for an honors diploma:
- Creating statewide advisory councils and or positions to coordinate AP activities and policies;
- Incorporating AP courses into statewide gifted and talented programs.

Technology can also increase accessibility to AP courses. For example, selected courses and teacher training are available via satellite through Oklahoma State University, South Carolina's Satellite Educational Resources Consortium, and Virginia's Satellite Educational Network.



## Are there other ways for students to earn college credit while in high school?

Dual-enrollment and the International Baccalaureate program are other popular ways to earn college credit while in high school. Dual-enrollment arrangements vary, but usually a local community college allows high school students to enroll in certain courses. The courses may be offered in the high school or at the college. Students who make a satisfactory grade (and pay the college fees) receive credit. Students do not pass a national examination to earn credit in dual-enrollment, but the credits earned may be transferable to other colleges.

The International Baccalaureate is a twoyear international high school program with a common curriculum (English, languages. social sciences, laboratory sciences, and an elective) and international examinations. To qualify for the diploma, students must complete seven courses, write a 4,000 word essay, perform community service, and pass the examinations. It is available in 66 high schools in the SREB region.

Like the Advanced Placement program, the International Baccalaureate provides evidence of high level performance through its examinations. The curriculum is narrower than Advanced Placement, but generally colleges and universities throughout the nation will award credit for high level performance on the examinations.

#### Advanced Placement can be a model for school improvement

"When I first enrolled in the Advanced Placement program, I assumed it was just a special program that gives students the opportunity to earn college credit. However, after taking five AP courses, I am convinced that AP is synonymous with stimulating, challenging, thought-provoking, intense and demanding studies."

A 1995 high school senior

The benefits of Advanced Placement for students, schools, and colleges are many. The program upgrades the quality of the high school curriculum, challenges talented students and faculty, and provides opportunities for college and school faculty to improve college preparatory curriculums. Colleges can identify and attract highly motivated students. Students can strengthen the analytical and

study skills required to succeed in college. By earning college credit while in high school, students can enrich their programs of study in college or complete their undergraduate degrees earlier.

In schools that offer Advanced Placement, students, teachers, administrators, and parents learn what is required to be successful in college. If teachers and administrators know the skills and knowledge students should have to be ready for an AP course, they know what high school graduates should know and be able to do to succeed in college. Students who take the courses become more aware of the demands and expectations of college-level work.



### How can states expand and improve Advanced Placement?

■ Training Advanced Placement teachers results in better AP courses and better student performance on AP examinations.

The most important step is to insure that those who teach AP courses have the knowledge and know-how to conduct the course. Several states provide such training and the South Carolina Advanced Placement initiative is a good model. All first-time AP teachers are required to attend a summer institute for the course they plan to teach. The week-long institutes cost about \$600 per teacher, and the state pays the costs for each teacher who attends.

In addition to the summer institutes. South Carolina conducts a series of workshops for first-time and experienced AP teachers during the school year. Teachers

- who teach courses that are prerequisite to AP courses are also encouraged to attend the AP institutes and workshops so that they will have a better understanding of what students need to be ready for AP courses.
- Funding part or all of AP examination fees insures that all students have the opportunity to take the examinations and provides additional incentives for them to do so.

Advanced Placement examinations costs \$71 each in 1995—a low price compared to tuition and fees for a college course. Yet this may be a hardship for many students or they may use the fee as a reason for not taking the examination. As noted earlier, several SREB states now pay for all or part of the examination fee.

## **SREB Regional Goals for Advanced Placement**

- Increase the percentage of high schools offering Advanced Placement courses to at least 60 percent—Eight SREB states have met this goal (Alabama, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, and West Virginia);
- Increase the percentage of students taking Advanced Placement examinations to the national average or higher—Six SREB states (Florida, Georgia, Maryland, North Carolina, South Carolina, and Virginia) are above the national average of the number of examinations per 1,000 high school juniors and seniors;
- Increase the "passing" rate to at least the national rate—The percentage of examinations with scores of 3 or higher met or exceeded the national average of 65 percent in four SREB states (Maryland, Oklahoma, Texas, and Virginia).



Providing incentives leads to greater school and student participation.

Including Advanced Placement as an indicator of academic success and school effectiveness or as a requirement for acceeditation, encourage schools to participate. A key element in Texas' recent AP initiative was including participation in Advanced Placement as part of the Academic Excellence Indicator System. In Virginia, every school must offer Advanced Placement to be accredited.

Another incentive is to provide additional funding for schools based on the number of students who earn a grade of 3 or higher on the examinations, as in Florida. While most schools use the extra money to reduce the cost of the examinations, the funds can also be used by the schools

for course materials, teacher training, or other AP costs.

Paving a portion or all of the examination fee is one incentive for students. The most obvious incentive for students is the time and money they can save by earning college credit while in high school.

Advanced Placement's sharp growth is an encouraging sign that SREB states can meet the challenge of raising student achievement to national levels for more and more students. With 140,000 students now enrolled in college-level courses in high schools, more students than ever are learning advanced skills and knowledge. They and their teachers are strengthening their schools and pointing the way for all students and teachers to raise their expectations.